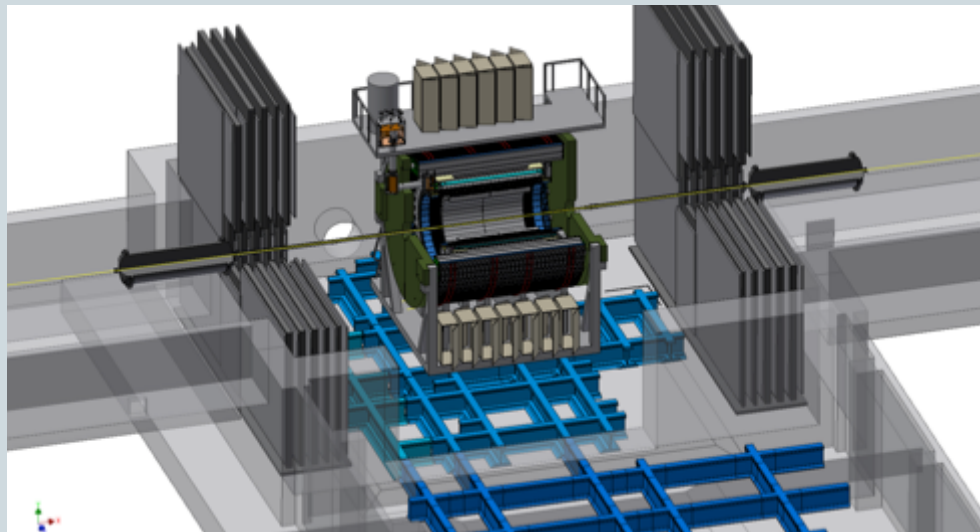


sPHENIX Engineering Meeting



DON LYNCH
DECEMBER 4, 2014

AGENDA

2

- BABAR Magnet Update
- Outer HCal Structural Analysis (Assembly and Support)
- sPHENIX Project Management

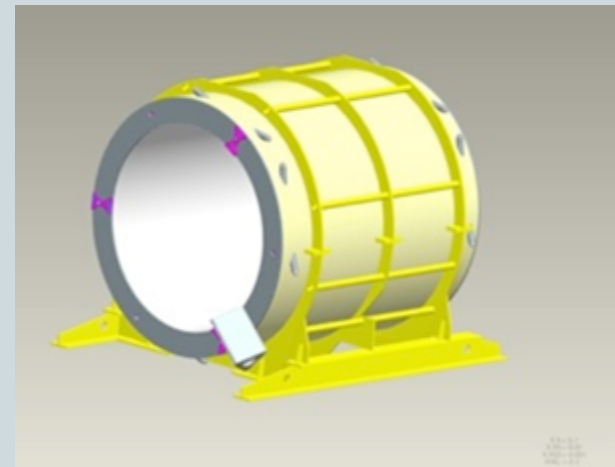


December 4, 2014

Present Magnet Status

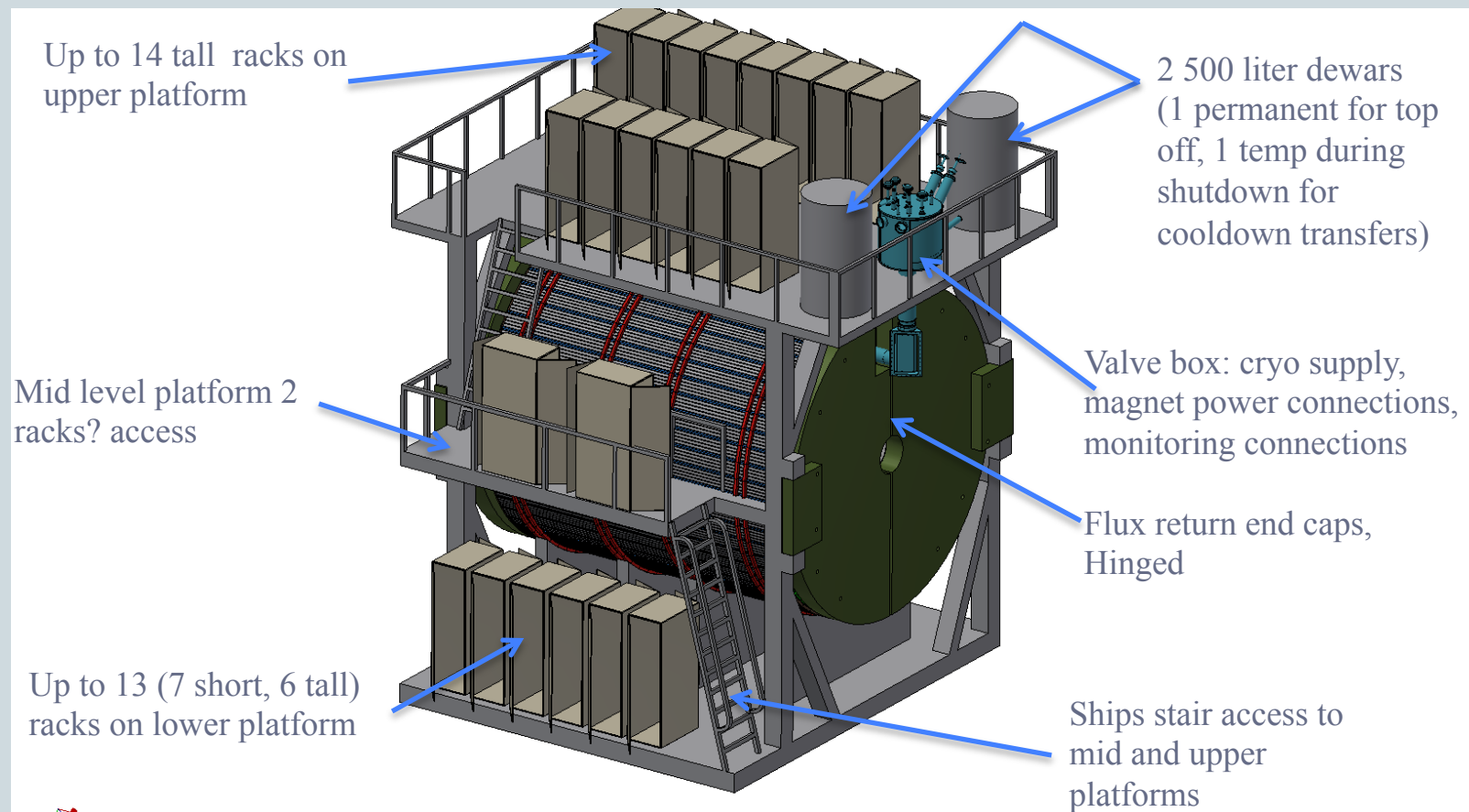
3

- SC Solenoid Magnet is at SLAC
- Ready for shipment but shipping vendor screw up requires a re-bid of shipping contract – RFQ has been issued and bids are due tomorrow
- Expect to ship ~ mid January
- Valve box is also at SLAC and will ship separately
- Other ancillary equipment is crated, will also ship separately
- Still planning for ~May 2015 cold, low current test
- Planning for a full field test at some point
- Magnet review scheduled for 12/16



sPHENIX Global Design Concept

4



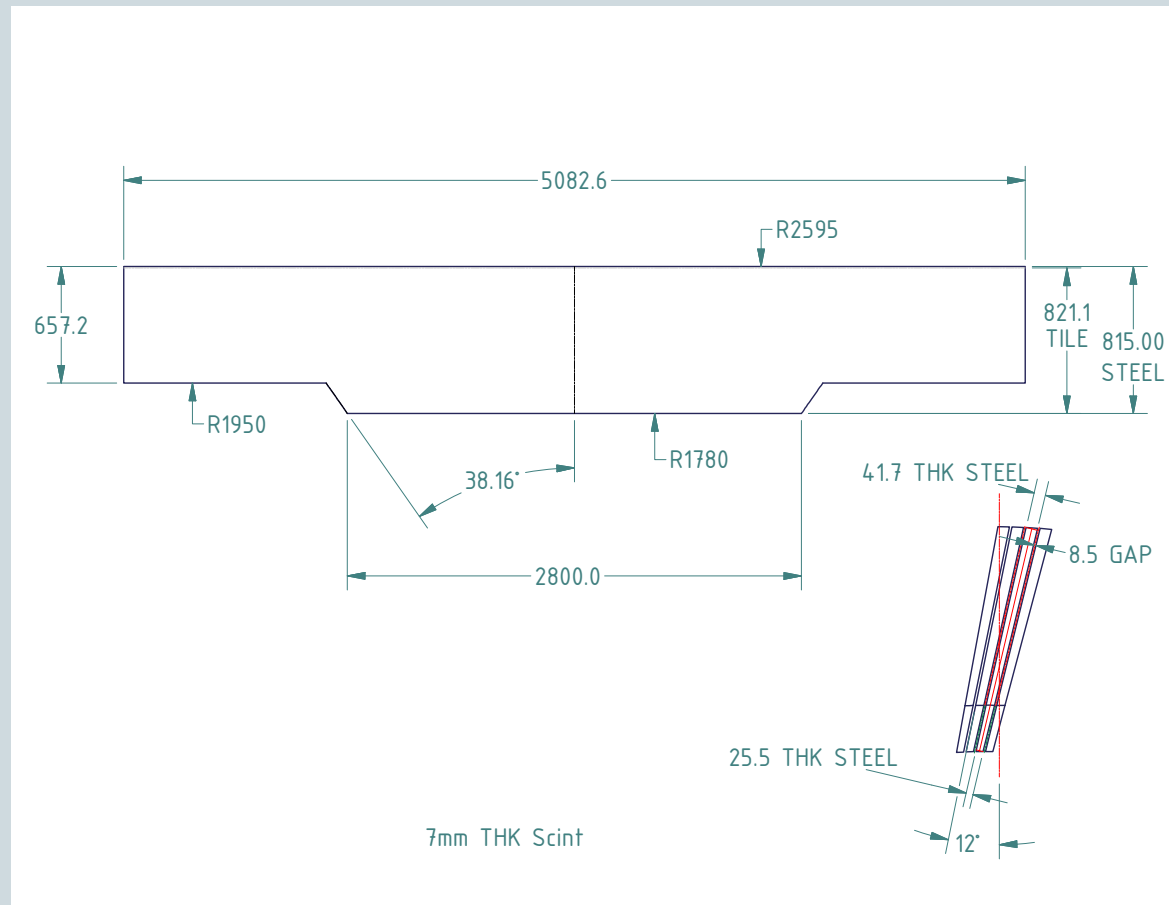
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December 4, 2014

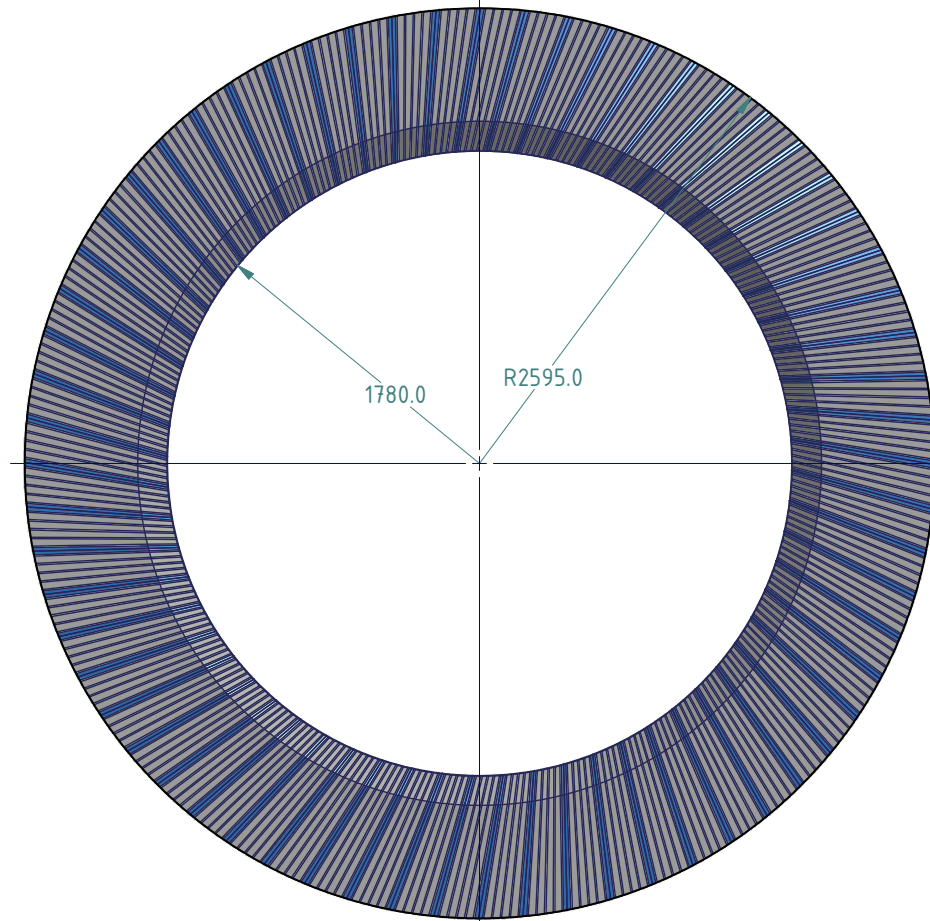
Dimensions for Magnet Calculations

6



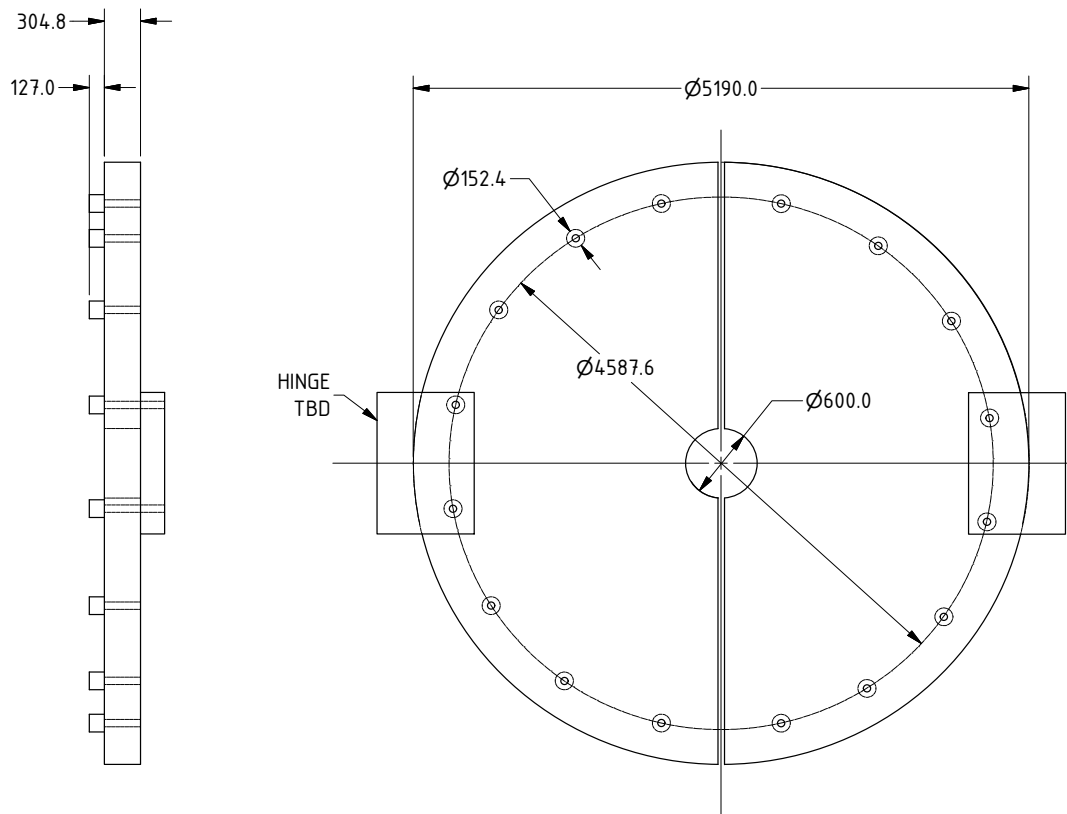
Dimensions for Magnet Calculations

7



Dimensions for Magnet Calculations

8



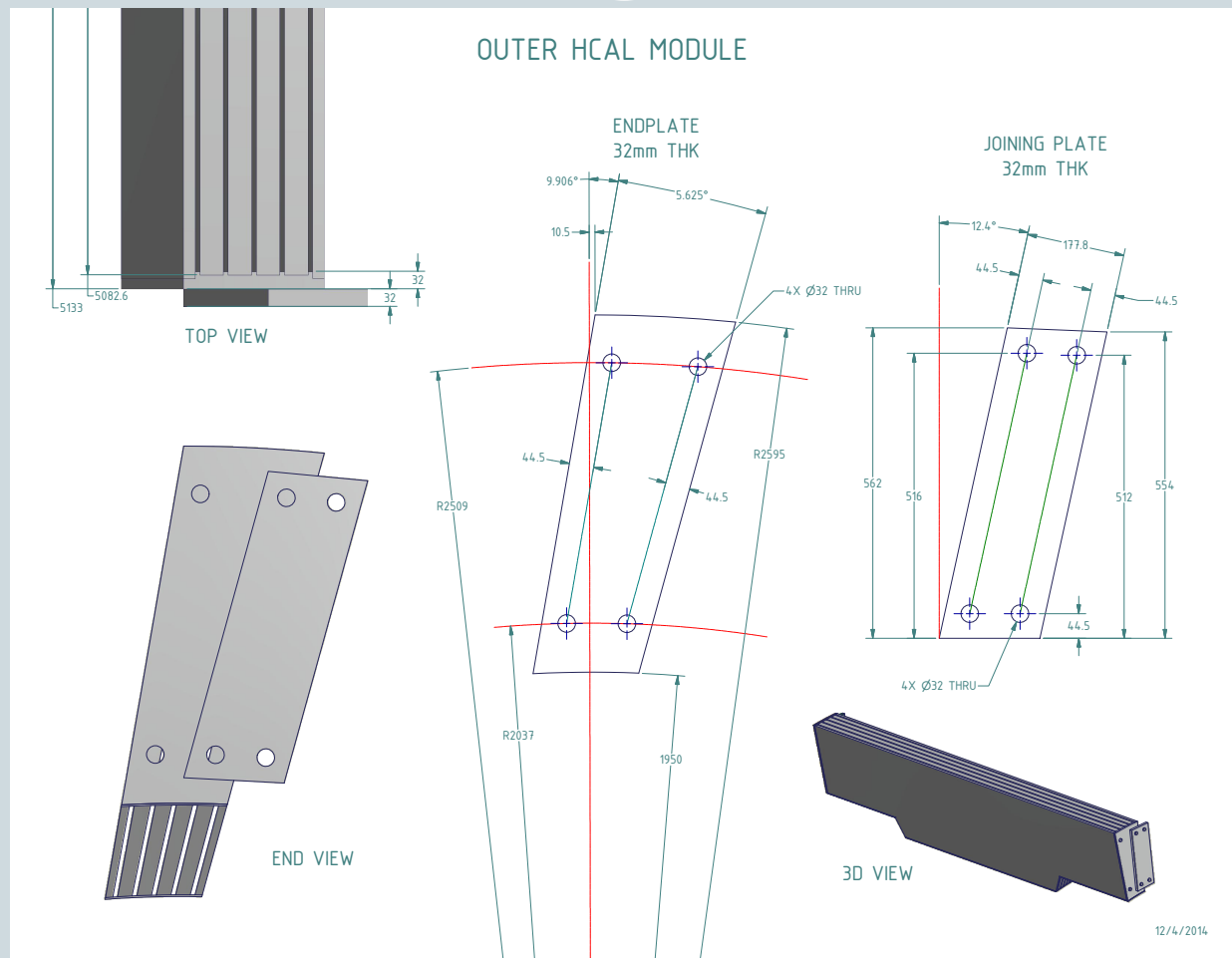
ENDCAP DIMENSIONS
12/3/2014



December 4, 2014

Dimensions for Magnet Calculations

9



Outer HCal Assembly and Support Analyses

10

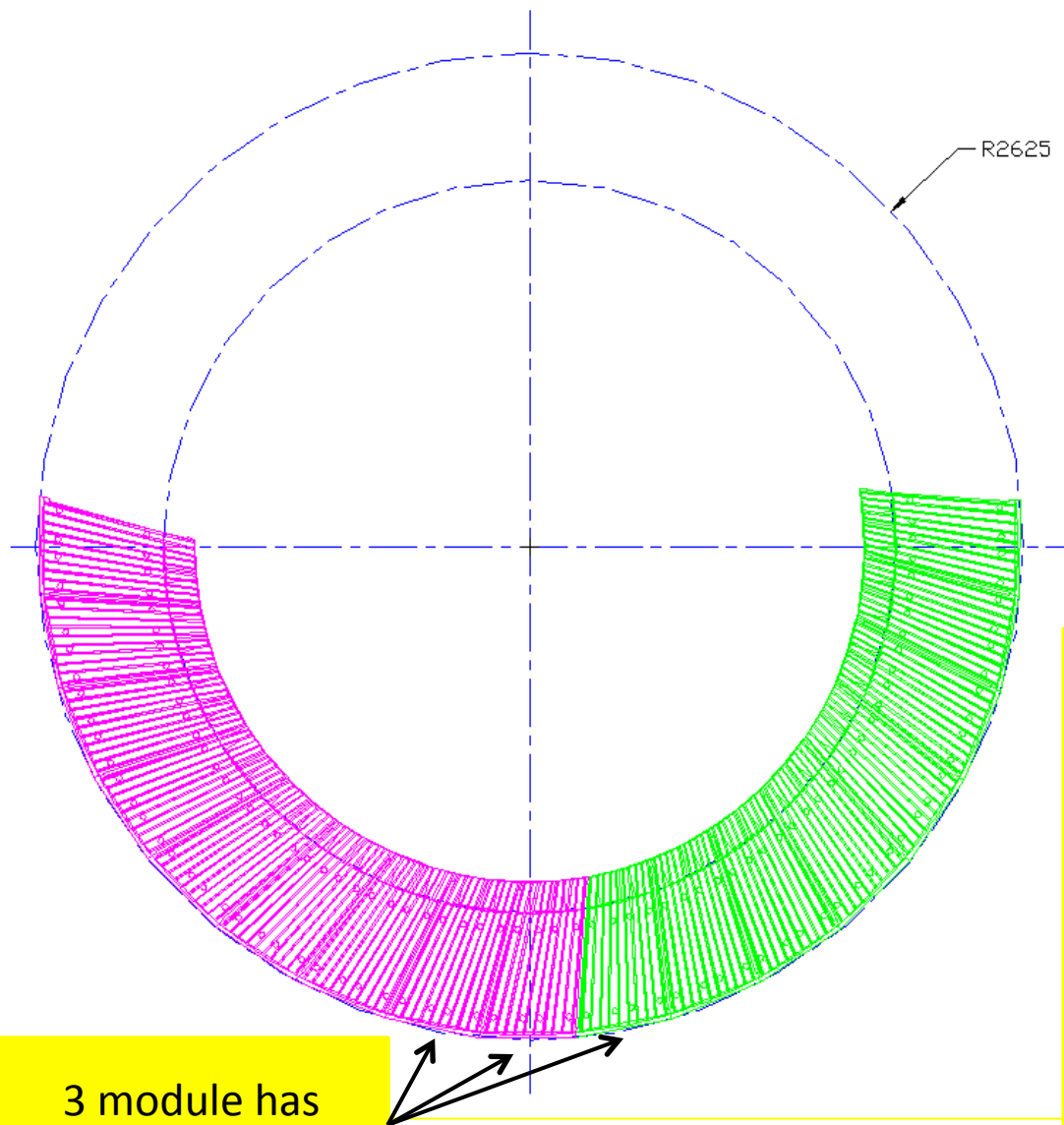
- Anatoli's slides showing analyses of the Outer HCal Assembly and Support have been reduced in the following slides. The full set of slides are linked on the agenda page.



December 4, 2014

**sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.**

1. HALF BARREL, SUPPORTED BY 33.75 degree SUPPORT (3 modules)



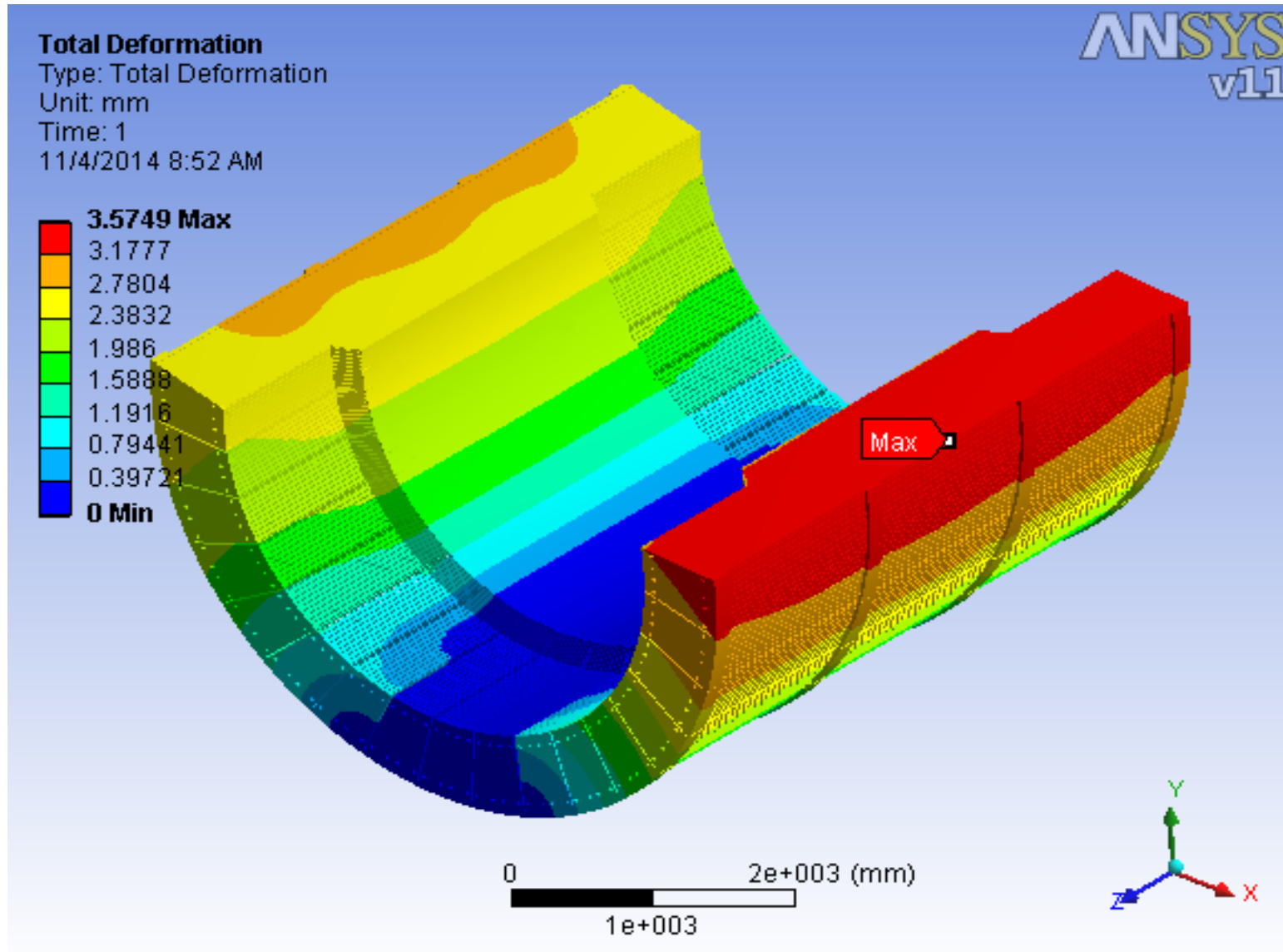
3 module has
fixed support

5 DIFFERENT
SITUATION
RELATED TO
OUTER
CALORIMETER
HAS BEEN STUDIED

BNL, A.Gordeev, R.Ruggiero

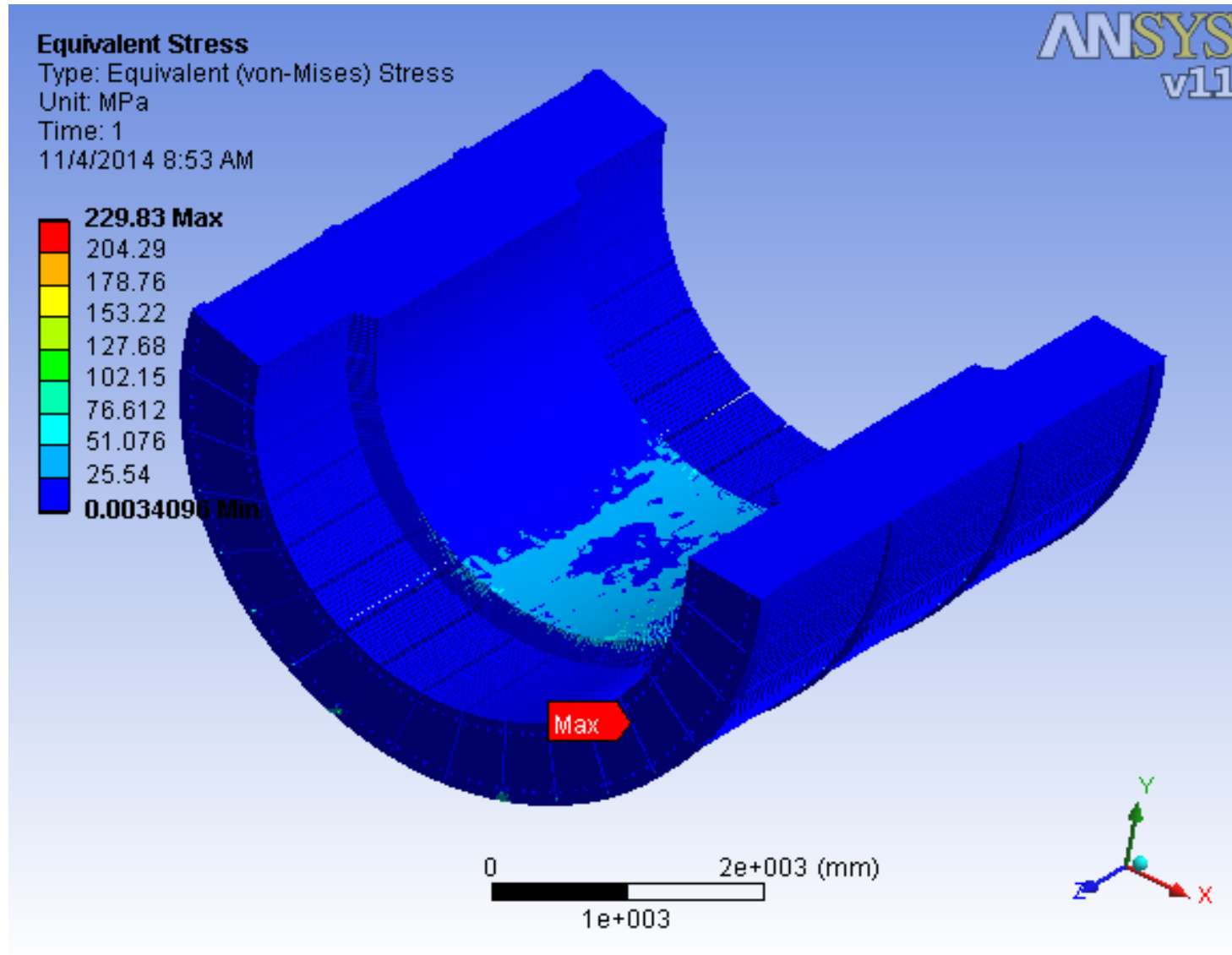
sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.

1. HALF BARREL, SUPPORTED BY 33.75 degree SUPPORT (3 modules)
DEFORMATION



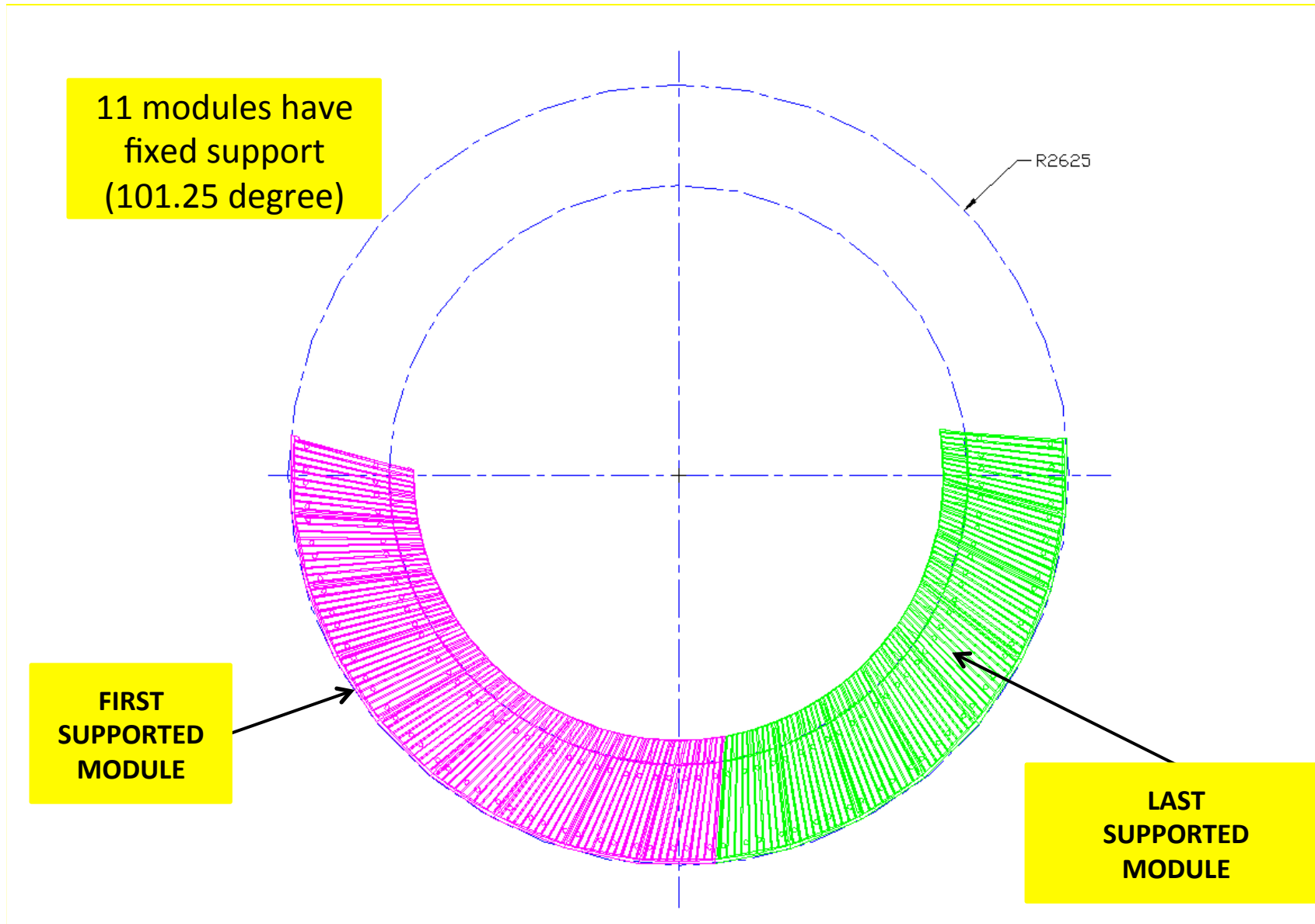
**sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.**

**1. HALF BARREL, SUPPORTED BY 33.75 degree SUPPORT (3 modules)
EQUIVALENT STRESS**



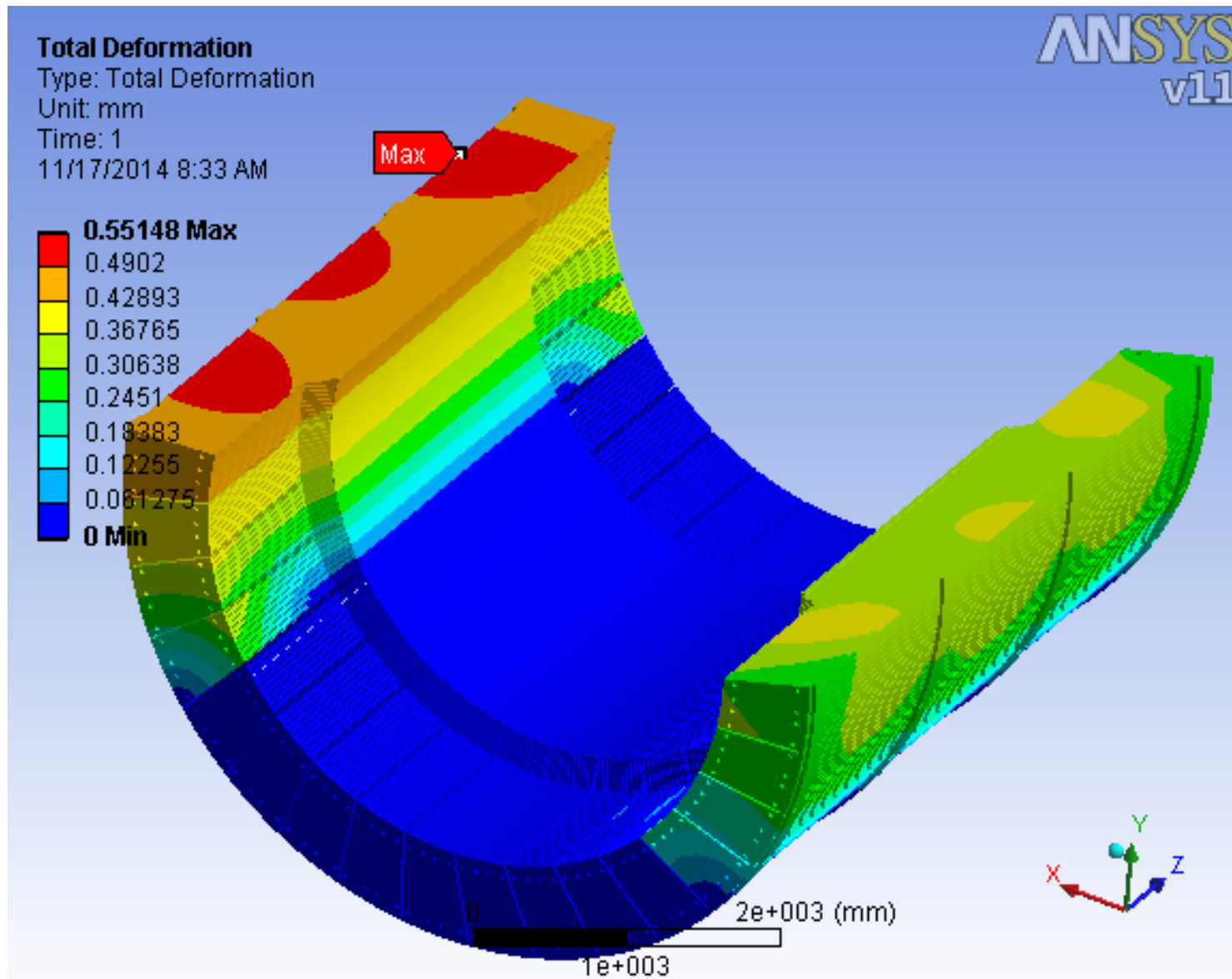
**sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.**

2. HALF BARREL, SUPPORTED BY 101.25 degree SUPPORT (11 modules)



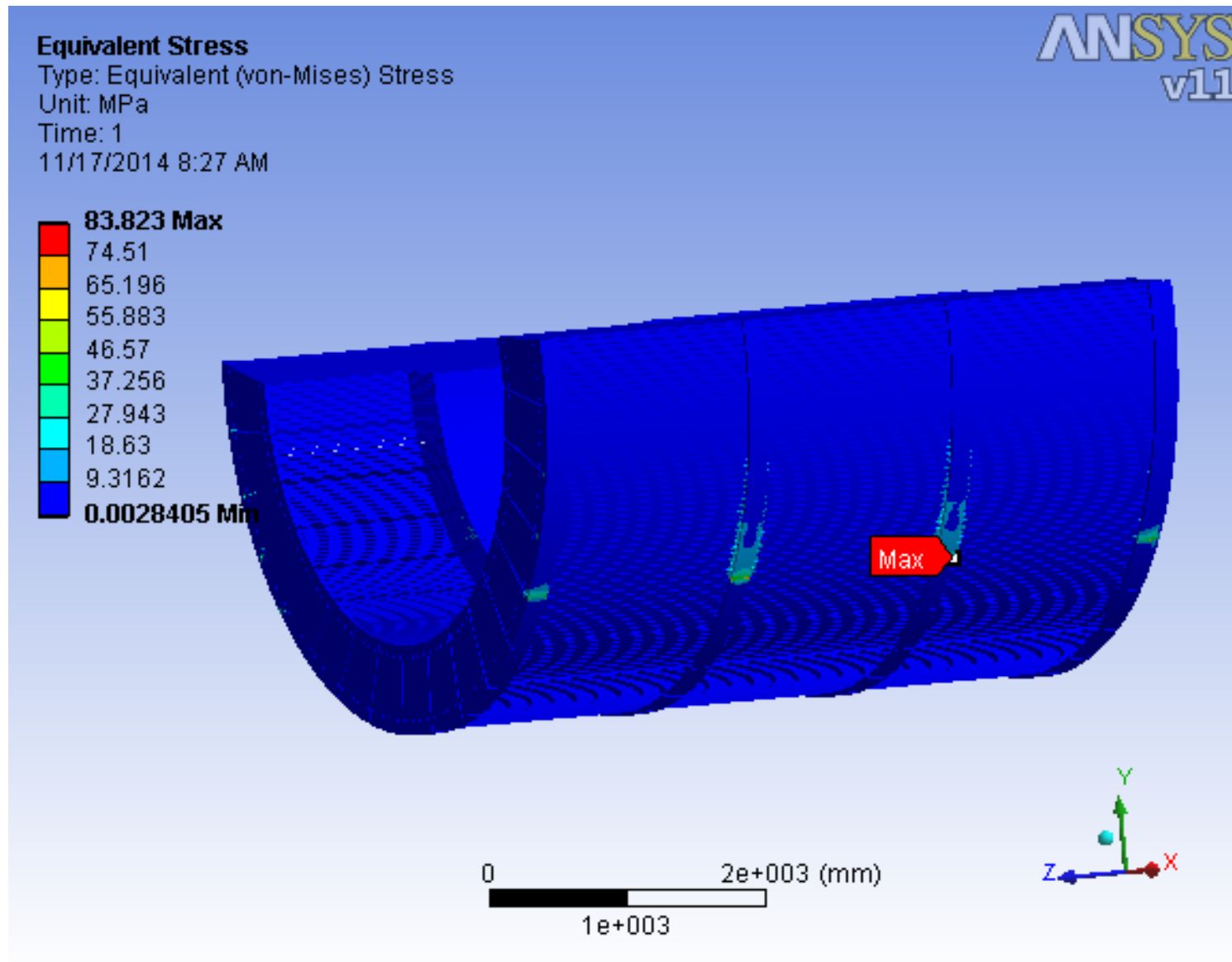
sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.

2. HALF BARREL, SUPPORTED BY 101.25 degree SUPPORT (11 modules)
3D DEFORMATION

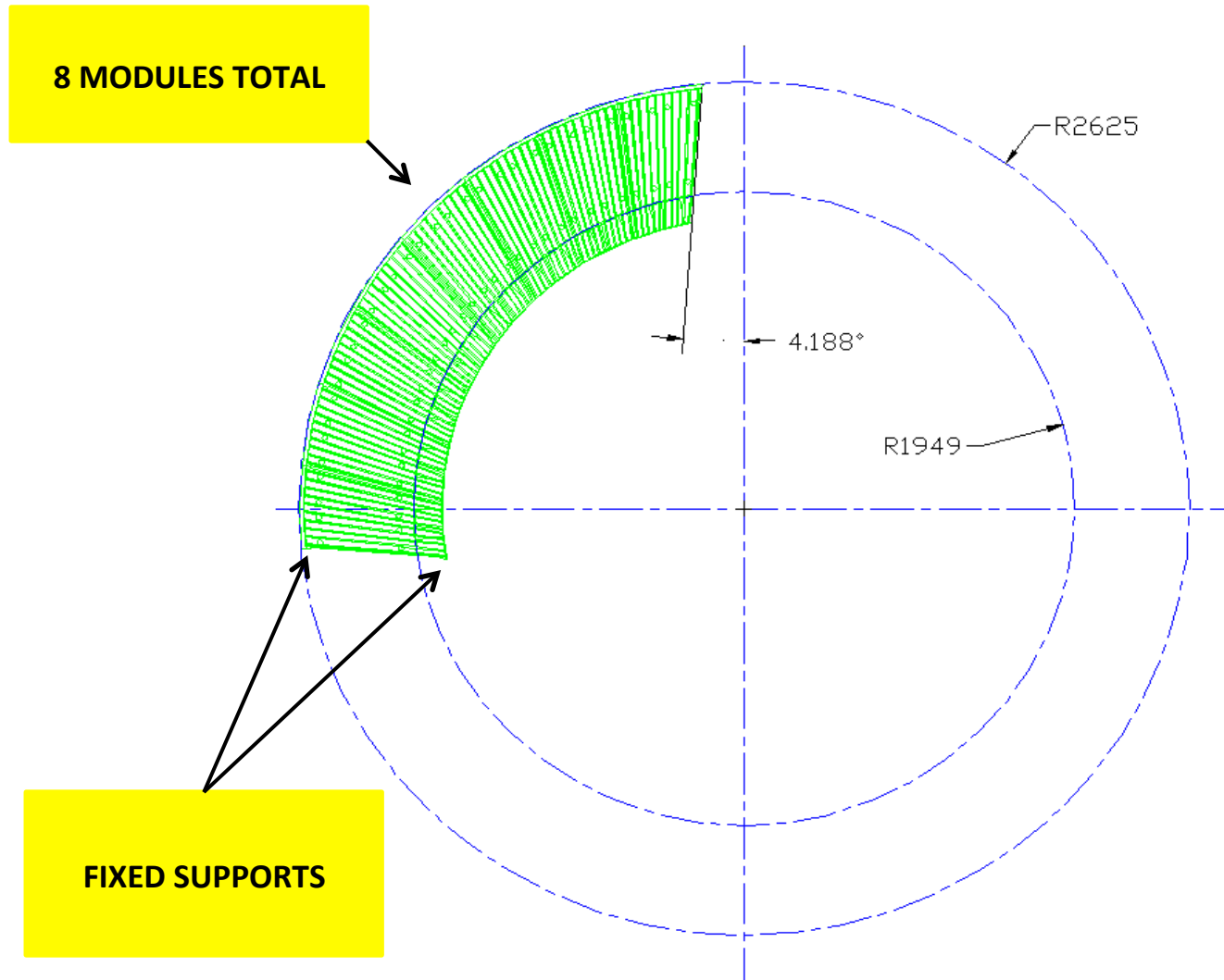


sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.

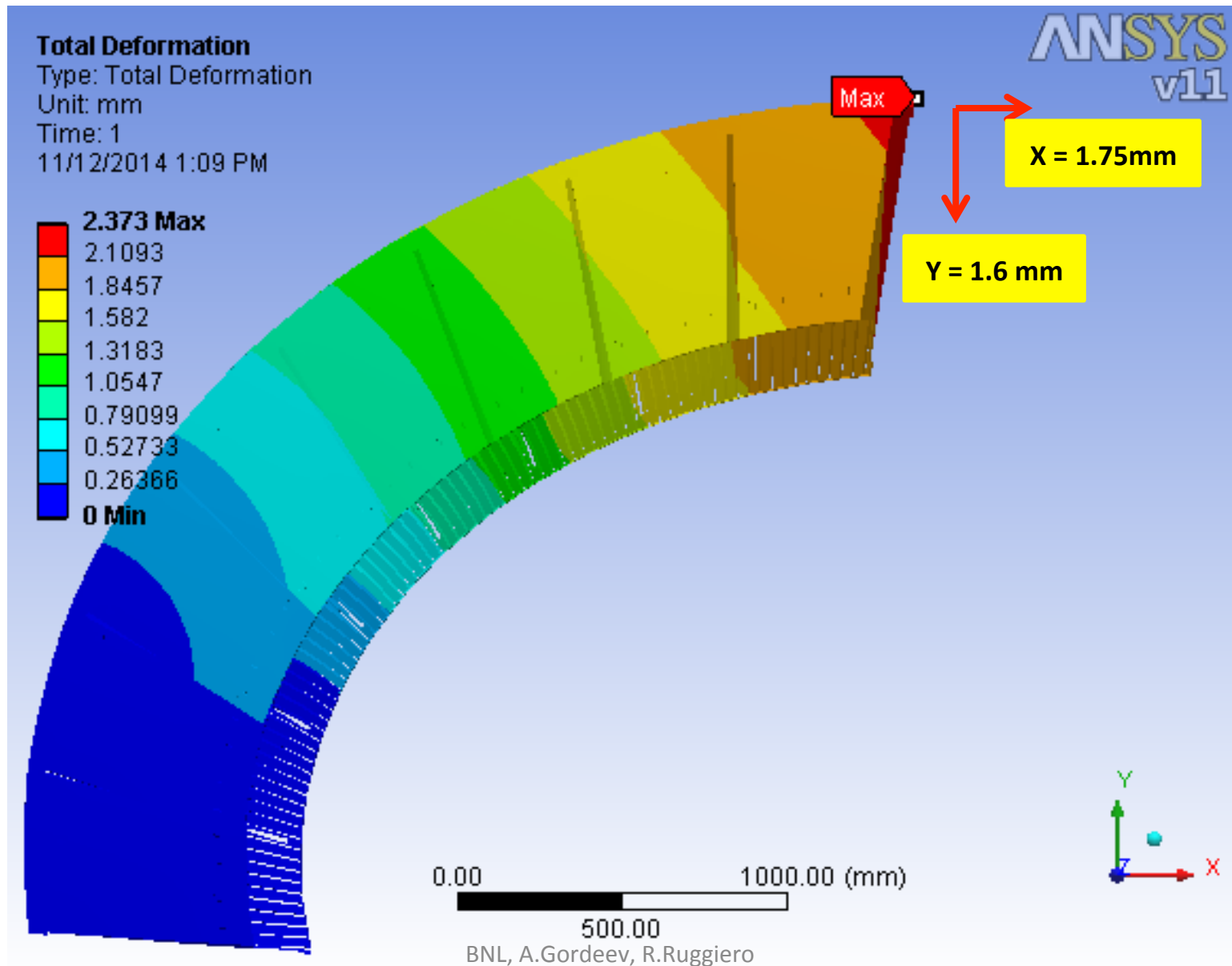
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EQUIVALENT STRESS



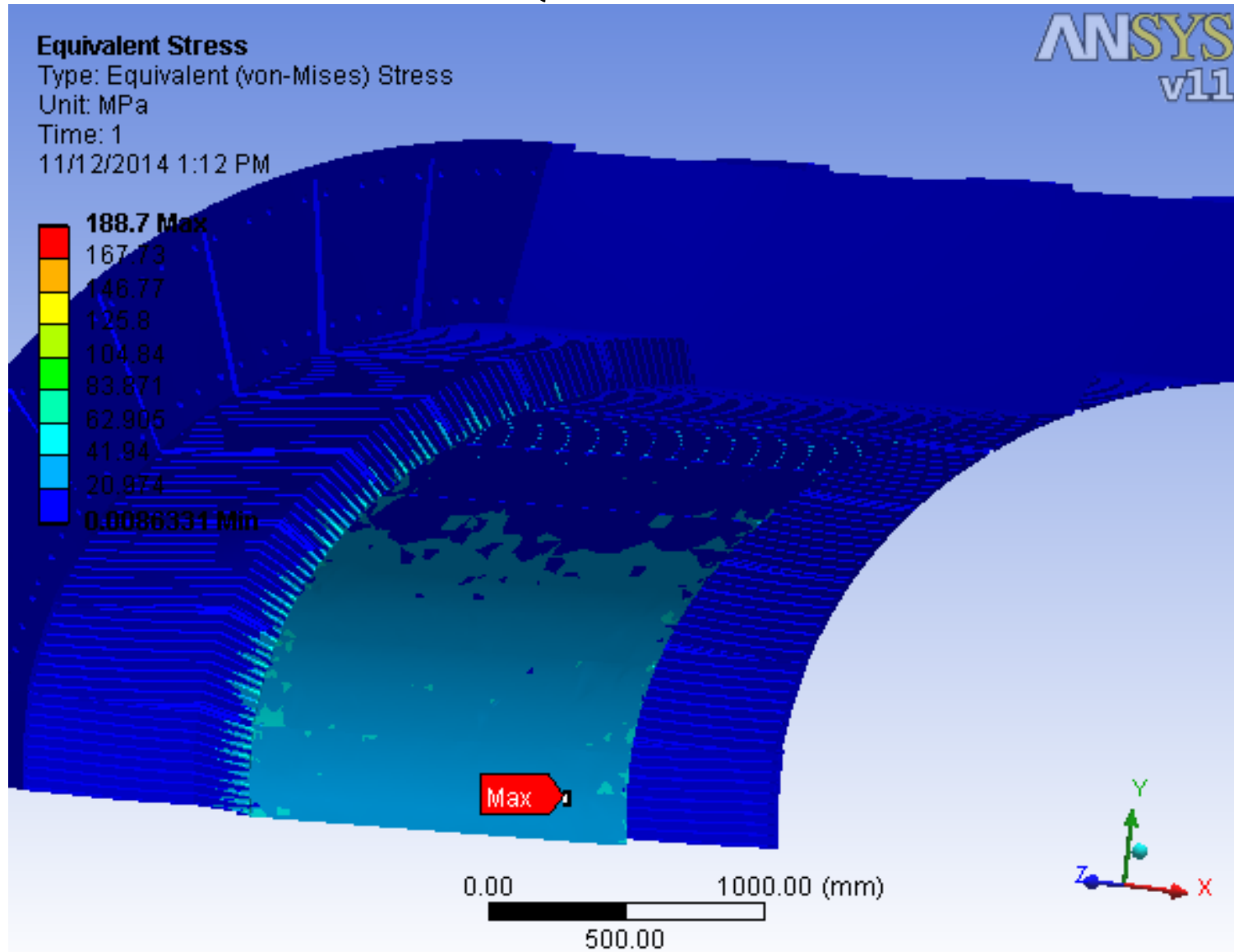
**sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.
3. QUARTER BARREL, SUPPORTED BY 1 (one) MODULE BOTTOM**



**sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.
3. QUARTER BARREL, SUPPORTED BY 1 (one) MODULE BOTTOM
DEFORMATION**

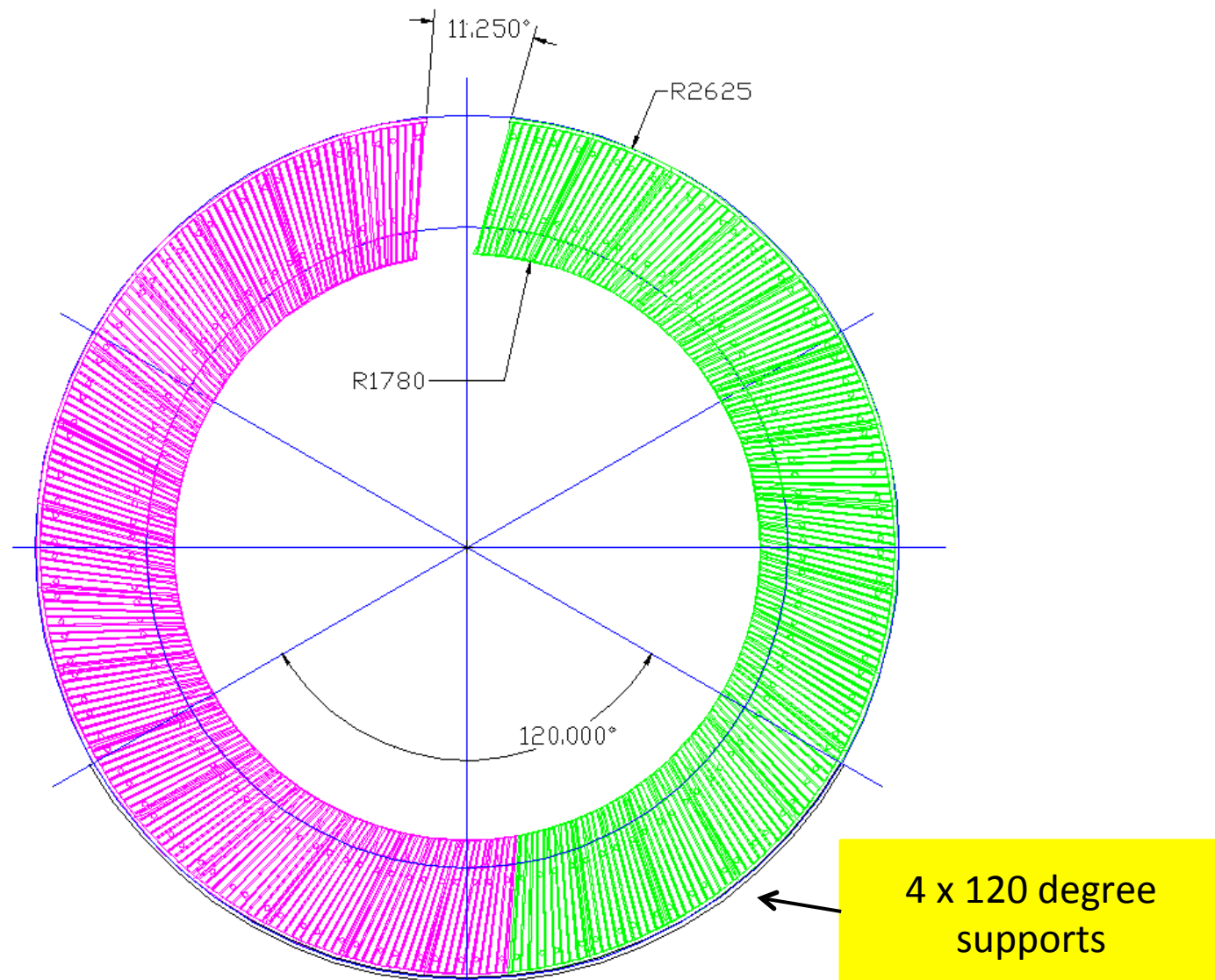


**sPHENIX OUTER CALORIMETER
ASSEMBLY STRUCTURAL ANALYSES.
3. QUARTER BARREL, SUPPORTED BY 1 (one) MODULE BOTTOM
EQUIVALENT STRESS**

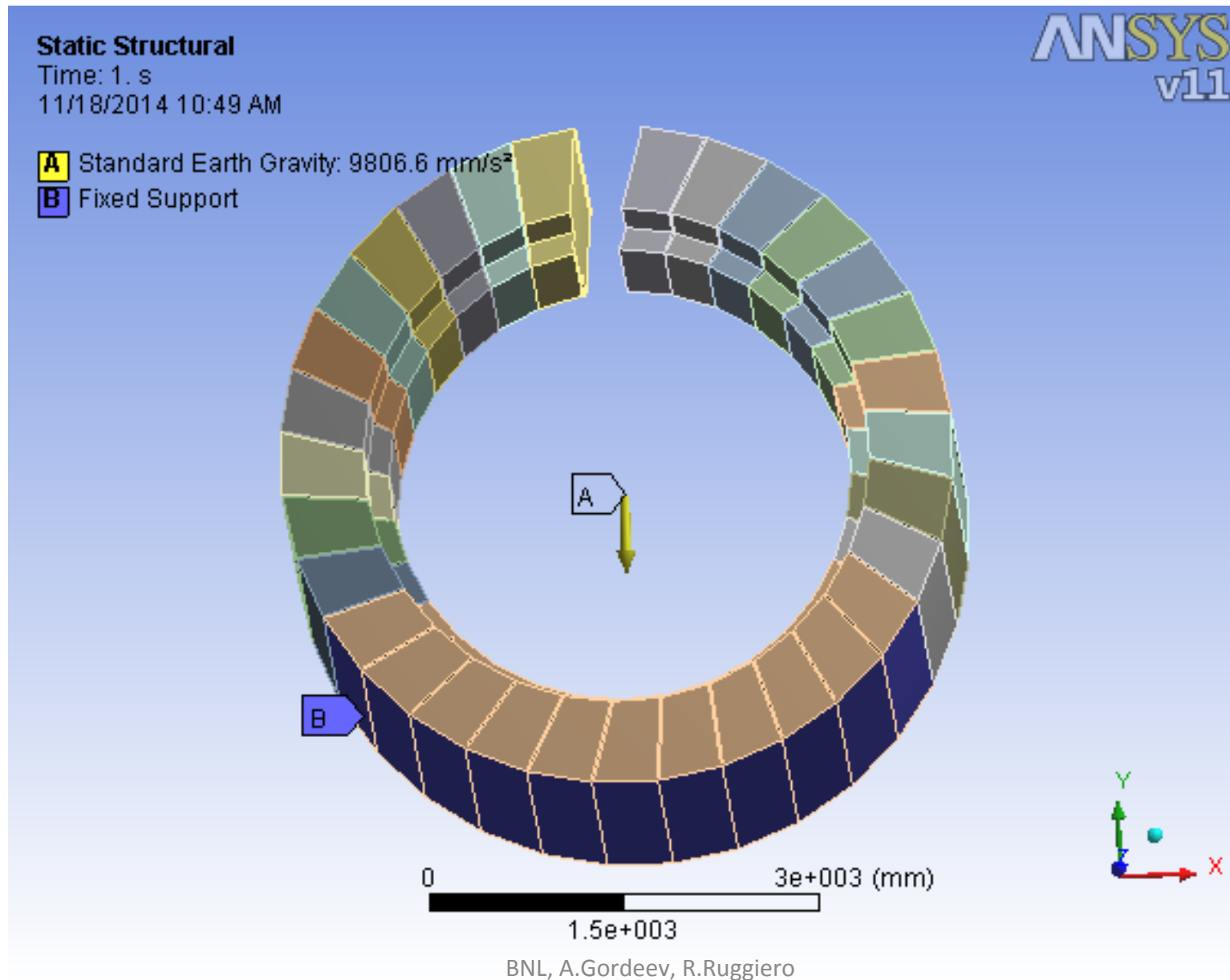


BNL, A.Gordeev, R.Ruggiero

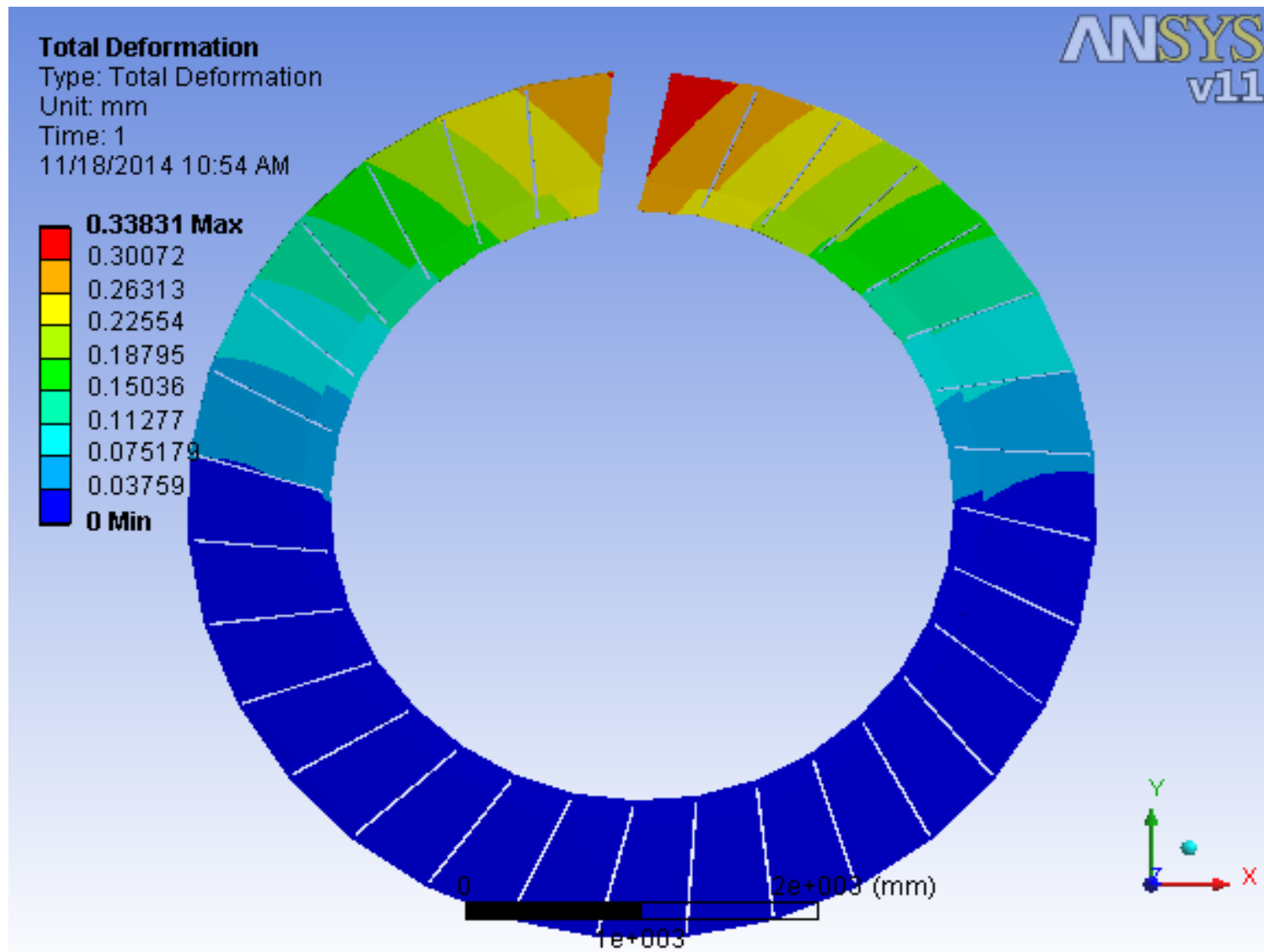
4. FULL ASSEMBLY WITH NO TOP MODULE
DUE TO VERY LARGE MODULE MODEL HAS BEEN SIMPLIFIED
SUPPORTED BY 120 degree support



4. FULL ASSEMBLY WITH NO TOP MODULE
DUE TO VERY LARGE MODULE MODEL HAS BEEN SIMPLIFIED
SUPPORTED BY 120 degree support. MODULE

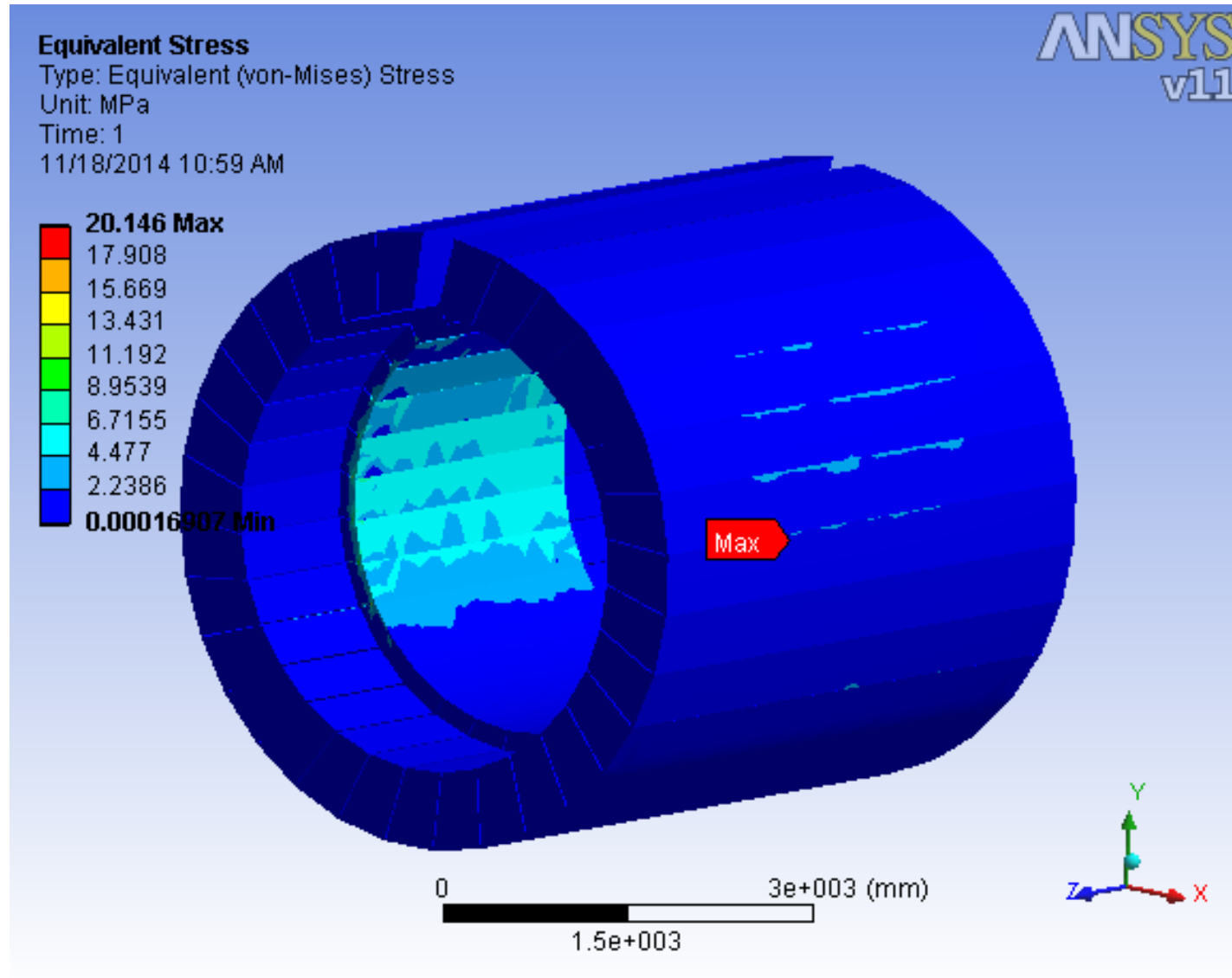


4. FULL ASSEMBLY WITH NO TOP MODULE
DUE TO VERY LARGE MODULE MODEL HAS BEEN SIMPLIFIED
SUPPORTED BY 120 degree support.
TOTAL DEFORMATION

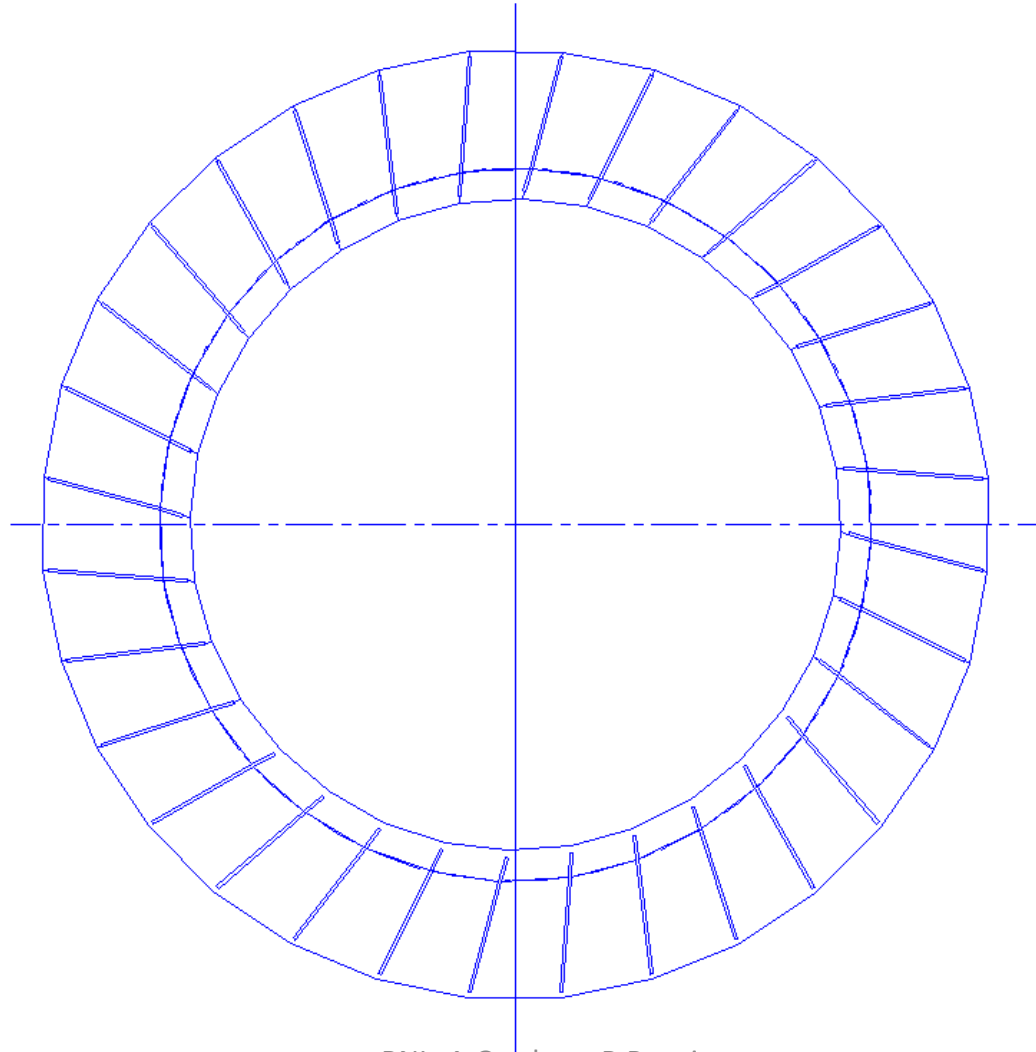


BNL, A.Gordeev, R.Ruggiero

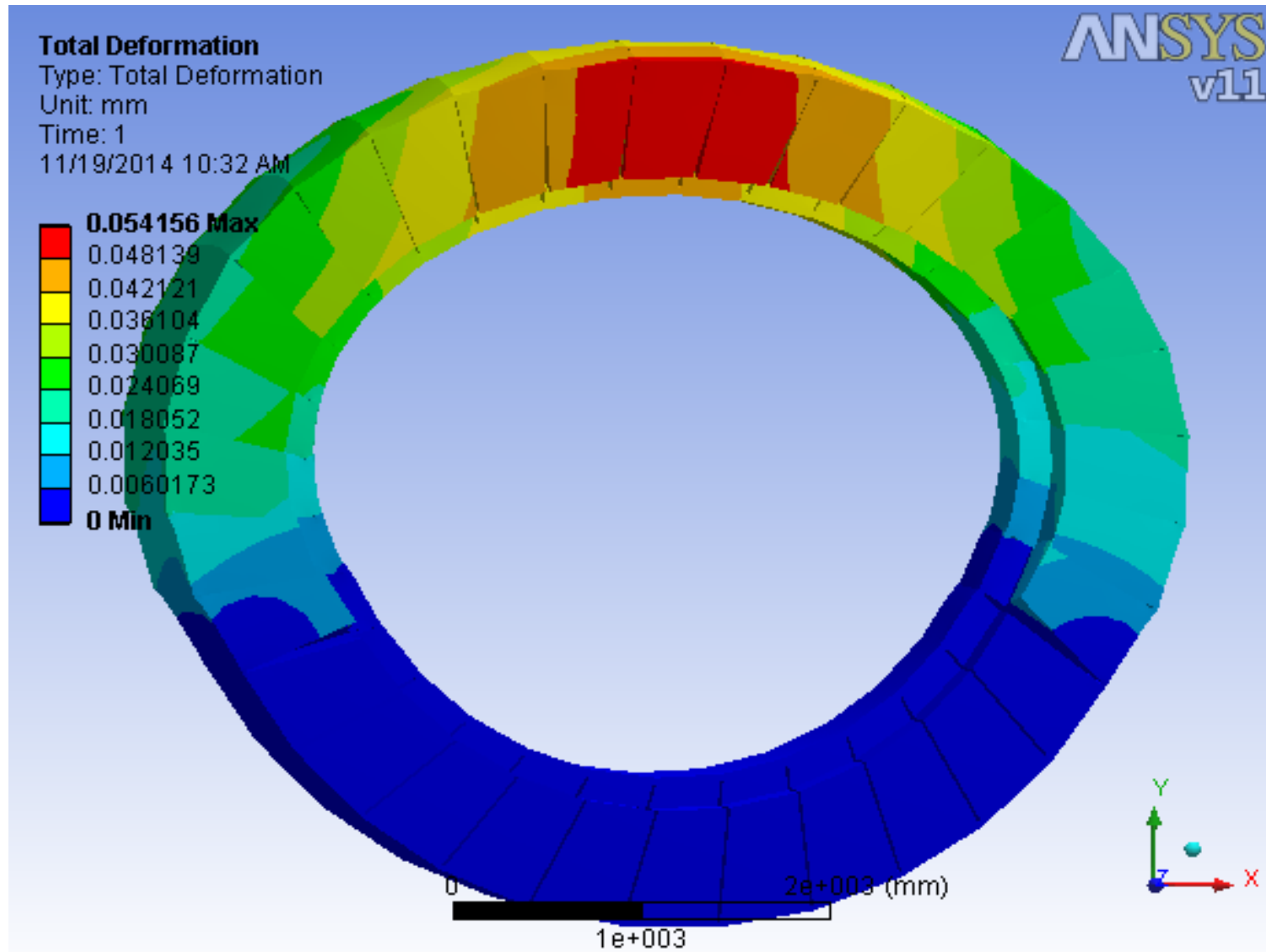
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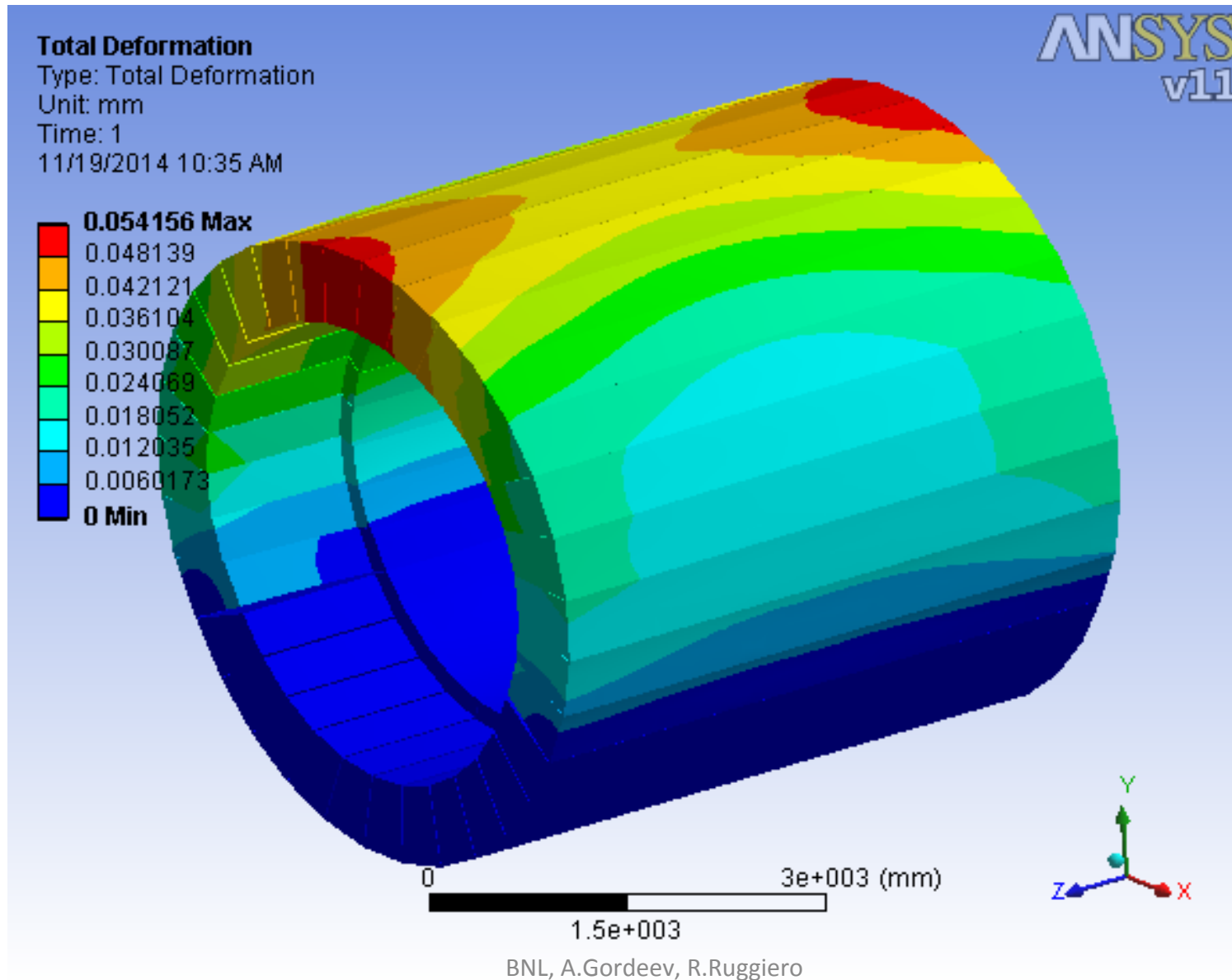
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